CLAIMS

1. A target protein of an antidiabetic, represented by the following (a) or (b):

(a) a protein consisting of the amino acid sequence represented by SEQ ID NO: 2; or

(b) a protein consisting of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 2 with the deletion, substitution, addition, or insertion of one or plural amino acids and interacting with the antidiabetic.

2. The target protein according to claim 1, wherein the antidiabetic is a thiazolidine derivative.

3. The target protein according to claim 2, wherein the thiazolidine derivative is pioglitazone.

4. The target protein according to claim 1, wherein the target protein is a γ-tubulin ring complex protein.

5. A gene encoding a target protein of an antidiabetic, represented by the following (a) or (b):

(a) a protein consisting of the amino acid sequence represented by SEQ ID NO: 2; or

(b) a protein consisting of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 2 with the deletion, substitution, addition, or insertion of one or plural amino acids and interacting with the antidiabetic.

6. The gene encoding a target protein according to claim 5, wherein the antidiabetic is a thiazolidine derivative.

7. The gene encoding a target protein according to claim 6, wherein the thiazolidine derivative is pioglitazone.

8. The gene encoding a target protein according to claim 5, wherein the target protein is a γ-tubulin ring complex protein.

9. A screening method for an antidiabetic, comprising the steps of:

bringing a candidate substance to be screened into contact with a protein represented by the following (a) or (b):

(a) a protein consisting of the amino acid sequence represented by SEQ ID NO: 2; or

(b) a protein consisting of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 2 with the deletion, substitution, addition, or insertion of one or plural amino acids and interacting with the antidiabetic; and

detecting the interaction between the candidate substance and the protein.

10. The screening method for an antidiabetic according to claim 9, wherein the antidiabetic is a thiazolidine derivative.

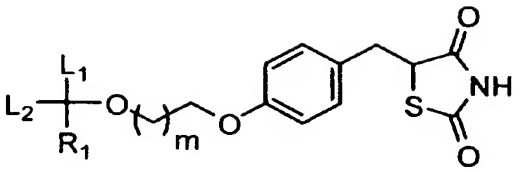
11. The screening method for an antidiabetic according to claim 10, wherein the thiazolidine derivative is pioglitazone.

12. The screening method for an antidiabetic according to claim 9, wherein the target protein is a γ-tubulin ring complex protein.

13. An antidiabetic screened by a screening method according to any one of claims 9 to 12 and mainly composed of a substance that interacts with the protein.

14. A thiazolidine derivative represented by the general formula (I):

[Chemical Formula 1]



(I)

(in the formula (I), R_1 is hydrogen, a C_{1-10} alkyl group, a C_{3-7} cycloalkyl group, a C_{7-11} phenylalkyl group, a phenyl group, or a five- or six-membered heterocyclic ring comprising 1 or 2 heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur; L_1 and L_2 are identical or different and are each independently hydrogen or a C_{1-3} alkyl group or get together to form a C_{2-6} cycloalkyl group; and m represents any integer from 1 to 5).

15. The thiazolidine derivative according to claim 14, wherein in the formula (I), L_1 and L_2 get together to form a C_{2-6} cycloalkyl group.

16. The thiazolidine derivative according to claim 14, wherein in the formula (I), R_1 is hydrogen, and L_1 and L_2 get together to form a C_{2-6} cycloalkyl group.

17. The thiazolidine derivative according to claim 14, wherein in the formula (I), R_1 is a C_{1-10} alkyl group, and L_1 and L_2 get together to form a C_{2-6} cycloalkyl group.

18. The thiazolidine derivative according to claim 14, wherein the thiazolidine derivative is 5-{4-[2-(1-methyl-cyclohexyloxy)-ethoxy]-benzyl}-thiazolidine-2,4-dione.

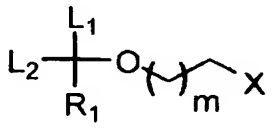
19. A pharmacologically acceptable salt of a thiazolidine derivative according to any one of claims 14 to 18.

20. A pharmaceutical composition comprising a thiazolidine derivative according to any one of claims 14 to 18 and/or a pharmacologically acceptable salt thereof as effective ingredients.

21. The pharmaceutical composition according to claim 20, wherein the pharmaceutical composition is an antidiabetic.

22. A process for manufacturing a thiazolidine derivative by subjecting, to condensation reaction, a compound represented by the general formula (II):

[Chemical Formula 2]

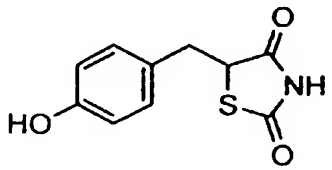


(II)

(in the formula (II), R_1 is hydrogen, a C_{1-10} alkyl group, a C_{3-7} cycloalkyl group, a C_{7-11} phenylalkyl group, a phenyl group, or a five- or six-membered heterocyclic ring comprising 1 or 2 heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur; L_1 and L_2 are identical or different and are each independently hydrogen or a C_{1-3} alkyl group or get together to form a C_{2-6} cycloalkyl group; m represents any integer from 1 to 5; and X is one selected from the group consisting of $MeSO_2$, p-toluenesulfonyl, iodine, bromine, chlorine, and a hydroxy group) and

a compound represented by the general formula (III):

[Chemical Formula 3]



(III)